**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously presented) A method for pacing a heart, comprising:

providing a post ventricular atrial refractory period (PVARP) associated with a pacing timing sequence;

delivering pacing therapy to left and right ventricles using the pacing timing sequence;

detecting a disruption of ventricular pacing during the pacing therapy;

modifying the pacing timing sequence to restore the ventricular pacing;

pacing the ventricles using the modified pacing timing sequence; and

avoiding pacemaker mediated tachycardia while pacing the ventricles using the modified pacing timing sequence.

2. (Previously presented) The method of claim 1, wherein detecting the disruption of the ventricular pacing comprises detecting a premature ventricular contraction.

3. (Withdrawn) The method of claim 1, detecting the disruption of ventricular pacing comprises detecting a transient increase in heart rate above a maximum tracking rate.

4. (Withdrawn) The method of claim 1, wherein detecting the disruption of ventricular pacing comprises detecting one intrinsic atrial depolarization occurring within the PVARP.

5. (Previously presented) The method of claim 1, wherein detecting the disruption of the ventricular pacing comprises detecting an intrinsic ventricular depolarization.

6. (Original) The method of claim 1, wherein modifying the pacing timing sequence comprises adjusting the PVARP.

7. (Original) The method of claim 1, wherein modifying the pacing timing sequence comprises adjusting the PVARP for two or more successive cycles.

8. (Original) The method of claim 1, wherein modifying the pacing timing sequence comprises decreasing the PVARP.

9. (Withdrawn) The method of claim 1, wherein modifying the pacing timing sequence comprises ignoring the PVARP.

10. (Withdrawn) The method of claim 1, wherein delivering the bi-ventricular pacing therapy using the modified pacing timing sequence comprises avoiding pacemaker mediated tachycardia.

11. (Previously presented) The method of claim 1, wherein pacing the ventricles using the modified pacing timing sequence comprises restoring the ventricular pacing following a premature ventricular contraction.

12. (Previously presented) The method of claim 1, wherein pacing the ventricles using the modified pacing timing sequence comprises restoring the ventricular pacing as an intrinsic atrial rate decreases below a maximum tracking rate.

13. (Previously presented) The method of claim 1, wherein pacing the ventricles using the modified pacing timing sequence comprises restoring the ventricular pacing.

14. (Withdrawn) The method of claim 1, wherein delivering the bi-ventricular pacing therapy using the modified pacing timing sequence comprises avoiding pacing hysteresis as an intrinsic atrial rate decreases below a maximum tracking rate.

15. (Withdrawn) The method of claim 1, wherein delivering the bi-ventricular pacing therapy using the modified pacing timing sequence comprises pacing below an upper rate limit.

16. (Withdrawn) The method of claim 1, wherein delivering the bi-ventricular pacing therapy using the modified pacing timing sequence comprises implementing a ventricular tracking timing sequence.

17. (Previously presented) The method of claim 1, further comprising:

detecting an intrinsic ventricular depolarization; and

interrupting pacing the ventricles using the modified pacing timing sequence if the intrinsic ventricular depolarization is detected.

18. (Cancelled)

19. (Original) The method or claim 1, wherein avoiding the pacemaker mediated tachycardia comprises:

detecting one or more pacemaker mediated tachycardia events; and

inhibiting atrial tracking based on the detection of the one or more pacemaker mediated tachycardia events.

20. (Withdrawn) The method or claim 1, wherein avoiding the pacemaker mediated tachycardia comprises:

detecting a retrograde p-wave; and

inhibiting initiation of a pacing escape interval based on the detection of the retrograde p-wave.

21. (Previously presented) A cardiac rhythm management system, comprising:

a controller configured to implement a pacing timing sequence including a post ventricular atrial refractory period (PVARP), control delivery of a pacing therapy to left and right ventricles using the pacing timing sequence, analyze cardiac signals to detect a disruption of ventricular pacing, modify the pacing timing sequence to restore the ventricular pacing, control delivery of pacing to the ventricles using the modified pacing timing sequence, and avoid pacemaker mediated tachycardia while the ventricles are paced using the modified pacing timing sequence.

22. (Withdrawn) The system of claim 21, wherein the disruption of ventricular pacing comprises one atrial event occurring within the PVARP.

23. (Withdrawn) The system of claim 21, wherein the disruption of ventricular pacing comprises two or more atrial events occurring respectively within two or more successive PVARPs.

24. (Previously presented) The system of claim 21, wherein the disruption of the ventricular pacing comprises an intrinsic ventricular depolarization.

25. (Previously presented) The system of claim 21, wherein the disruption of the ventricular pacing comprises a premature ventricular contraction.

26. (Previously presented) The system of claim 21, wherein the controller is configured to modify the pacing timing sequence by adjusting the PVARP.

27. (Previously presented) The system of claim 21, wherein the controller is configured to modify the pacing timing sequence by decreasing the PVARP.

28. (Withdrawn, currently amended) The system of claim 21, wherein the ~~pulse generator~~ controller is configured to modify the pacing timing sequence by ignoring the PVARP.

29. (Withdrawn) The system of claim 21, wherein the modified pacing timing sequence is configured to avoid pacing hysteresis as an intrinsic atrial rate decreases below a maximum tracking rate.

30. (Previously presented) The system of claim 21, wherein the modified pacing timing sequence is configured to restore the ventricular pacing following a premature ventricular contraction.

31. (Previously presented) The system of claim 21, wherein the modified pacing timing sequence is configured to restore the ventricular pacing following a transient increase in heart rate above a maximum tracking rate.

32. (Previously presented) The system of claim 21, wherein the modified pacing timing sequence is configured to restore the ventricular pacing as an intrinsic atrial rate decreases below a maximum tracking rate.

33. (Withdrawn) The system of claim 21, wherein the modified pacing timing sequence is configured to pace at a rate below an upper rate limit.

34. (Withdrawn) The system of claim 21, wherein the modified pacing timing sequence comprises a ventricular tracking pacing protocol.

35. (Withdrawn) The system of claim 21, wherein the modified pacing timing sequence is configured to avoid pacemaker mediated tachycardia.

36. (Previously presented) A cardiac pacing system, comprising:

means for providing a post ventricular atrial refractory period (PVARP) associated with a pacing timing sequence;

means for delivering ventricular pacing therapy to left and right ventricles using the pacing timing sequence;

means for detecting a disruption of ventricular pacing;

means for modifying the pacing timing sequence to restore the ventricular pacing;

means for pacing the ventricles using the modified pacing timing sequence; and

means for avoiding pacemaker mediated tachycardia while pacing the ventricles using the modified pacing timing sequence.

37. (Withdrawn) The system of claim 36, further comprising means for detecting one atrial event occurring within the PVARP.

38. (Original) The system of claim 36, further comprising means for adjusting the PVARP.

39. (Original) The system of claim 36, further comprising means for adjusting the PVARP for two or more successive beats.

40. (Original) The system of claim 36, further comprising means for decreasing the PVARP.

41 – 42. (Cancelled)

43. (Original) The system of claim 36, further comprising means for interrupting the modified pacing sequence if an intrinsic ventricular depolarization is detected during implementation of the modified pacing timing sequence.

44. (Withdrawn) A method for pacing a heart, comprising:

delivering a bi-ventricular pacing therapy using a first pacing timing sequence associated with a post ventricular atrial refractory period (PVARP);

detecting a cardiac event that disrupts consistent ventricular pacing;

adjusting the PVARP;

delivering a modified bi-ventricular pacing therapy using the adjusted PVARP; and

avoiding pacemaker mediated tachycardia during delivery of the modified bi-ventricular pacing therapy.